IN THE CLAIMS

1. (Canceled)

2. (Original) A method for the specific modulation of the expression of target genes in cells and/or tissues of the CNS and/or eye, wherein a composition comprising one or more double- stranded oligoribonucleotides (dsRNA) is introduced into a cell, tissue or organism outside the blood-brain or blood-retina barriers.

3. (Original) The method of claim 2, wherein said method results in the provision of a test cell, test tissue or test organism, which can be preferably maintained under conditions allowing the degradation of the corresponding mRNA of one or more of target genes by RNA interference.

4. (Original) The method of claim 3 for the identification or validation of the function of a gene, further comprising comparing the resulting phenotype produced in the test cell, test tissue or test organism with that of a suitable control, thus allowing information on the function of the gene to be gained.

5. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 4~~ claim 2, wherein said specific modulation of the expression is an inhibition of target gene expression.

6. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 5~~ claim 2, wherein one or more of said target genes encode a cellular mRNA.

7. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 or 6~~ claim 2, wherein the cells and/or tissues are cells and/or tissues of the eye.

8. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 7~~ claim 2, wherein said cells or tissues are cells or tissues of the inner segment of the eye ball.

9. (Currently amended) The ~~use or~~ method of claim 8, wherein said cells are retinal cells.

10. (Currently amended) The ~~use or~~ method of claim 9, wherein said cells are cells of the retinal pigment epithelium (RPE) or neurosensory retina cells.

11. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 10~~ claim 2, wherein one or more of said target genes are predominantly expressed in said cell and/or tissue.

12. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 11~~ claim

2, wherein the expression of one or more of said target genes is specific for said cell and/or tissue.

13. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 12~~, claim 2 wherein said dsRNA molecules are between 21 and 23 nucleotides in length.

14. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 13~~ claim 2, wherein said dsRNA molecules contain a terminal 3'-hydroxyl group.

15. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 14~~ claim 2, wherein said dsRNA molecules have been chemically synthesized.

16. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 15~~ claim 2, wherein said dsRNA molecules represent an analogue of naturally occurring RNA.

17. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 16~~ claim 2, wherein said dsRNA analogues differ from the corresponding naturally occurring RNA by addition, deletion, substitution or modification of one or more nucleotides.

18. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 17~~, claim 2 wherein said dsRNA molecules inhibit the corresponding target genes by "posttranscriptional silencing".

19. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 18~~ claim 2, wherein said dsRNA molecules are encoded by a vector.

20. (Currently amended) The ~~use or~~ method of ~~any one of claims 19~~ claim 2, wherein the expression said dsRNA is under control of a cell and/or tissue specific promoter.

21. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 20~~ claim 2, wherein the dsRNAs are introduced into the cells or tissues bound to other molecules and/or combined with one or more suitable carriers.

22. (Currently amended) The ~~use or~~ method of claim 21, wherein the carrier is selected from a micellar structure~~, preferably a liposome~~, and a coat protein~~, derived from a virus such as the cytomegalovirus (CMV) or produced synthetically, adeno-associated virus (AAV) or adenovirus~~.

23. (Currently amended) The ~~use or~~ method of claim 21 ~~or 22~~, wherein the dsRNA is bound to cationic porphyrins, cationic polyamines, polymeric DNA-binding cations or fusogenic peptides.

24. (Currently amended) The ~~use or~~ method of ~~any one of claims 21 to 23~~

claim 21, wherein the carrier and/or the dsRNA-binding molecules were selected such that the dsRNA molecules are delivered continuously to the target cells or target tissues over a defined period of time after application.

25. (Currently amended) The ~~use or~~ method of ~~any one of claims 21 to 24~~ claim 21, wherein said carrier is specific for said cells and/or tissues as defined in any one of claims 7 to 12.

26. (Currently amended) The ~~use or~~ method of ~~any use of claims 1 to 25~~ claim 2, wherein said composition is in form to be applied outside the eye ball, preferably by iontophoresis, retrobulbar or systemic application or as eye drops.

27. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 25~~ claim 2, wherein the ~~subject~~ cells, tissues or organism is a vertebrate.

28. (Currently amended) The ~~use or~~ method of ~~any one of claims 1 to 25~~ claim 2, wherein the ~~subject~~ cells, tissues or organism is ~~a mammal, preferably human~~ mammalian.

29. (Canceled)

30. (Canceled)

31. (Currently amended) The method of claim ~~30~~ 2, wherein the cells ~~and/or~~ tissues or organism are ~~of~~ human ~~origin~~.

32.-45. (Canceled)

46. (Currently amended) The use of the method of ~~any one of claims 2 to 31~~ claim 2, ~~cell of claim 32 or non-human organism of any one of claims 33 to 39~~ in drug discovery or target gene isolation and/or validation.

47. (Canceled)

48. (New) The method of claim 2, wherein the dsRNA contains two symmetrical 3' overhangs of two nucleotides in length.

49. (New) The method of claim 48, wherein the overhangs comprise 2'-deoxy-thymidine.

50. (New) The method of claim 5, wherein the inhibition of target gene expression is associated with a retinal disease.

51. (New) The method of claim 5, wherein the inhibition of target gene expression is associated with a degenerative retinal disease.

52. (New) The method of claim 51, wherein the degenerative retinal disease is selected from primary detachment of the retina, retinoblastoma, retinal astrocytom, angiomatosis retinae, Coats disease, Eales disease, retinopathia centralis serosa, ocular albinism, retinitis pigmentosa, retinitis punctata albescens, Usher's syndrome, Leber's congenital amaurosis, cone dystrophy, vitelliforme macular degeneration, juvenile retinoschisis, North Carolina macular dystrophy, Sorsby fundus-dystrophy, Doyne's honeycombs, retinal dystrophy, Morbus Stargardt, Wagner's vitreoretinal degeneration and age-dependent macular degeneration.

53. (New) The method of claim 51, wherein the degenerative retinal disease is age-dependent macular degeneration.

54. (New) The method of claim 22, wherein the micellar structure is a liposome.

55. (New) The method of claim 22, wherein the coat protein is derived from a virus selected from a cytomegalovirus, an adeno-associated virus and an adenovirus.